

REMARKS

The Office Action mailed September 23, 2005 has been carefully reviewed and, in view of the above amendments and following remarks, reconsideration and allowance of the application are respectfully requested.

I. Claim Summary

Claims 1-14, 16-23, 25-37, 39-45, 47-59, 61-64, 80-81, and 83-118 are currently pending in the application, with claims 1, 26, 51, 80, 96, 103, 110, and 116-118 being independent claims. Claims 1, 26, 51-52, 63, 96, 98, and 103 are amended; claims 15, 24, 38, 46, 60, 65-79, and 82 are cancelled; and claims 110-118 are added, in accordance with the above amendments. In addition, claims 10, 16-17, 21-23, 32-33, 43-45, and 89-90 are withdrawn from consideration.

II. Office Action Summary

The following claim rejections were submitted by the Examiner in the outstanding Office Action:

- Claims 1-2, 4-9, 11-12, 14-15, 18-20, 24-26, 28-31, 35, 37-42, 46-56, 59-70, 73-76, 96-99, and 101-109 are rejected under 35 U.S.C. §102(b) as being anticipated by U.S. Patent Number 6,009,637 to Pavone;
- Claims 13, 27-28, 58, 80-88, 92-94, and 100 are rejected under 35 U.S.C. §103(a) as being unpatentable over Pavone; and
- Claims 3, 34-36, 57, 71-72, 91, 93, and 95 are rejected under 35 U.S.C. §103(a) as being unpatentable over a combination of Pavone and U.S. Patent Number 4,817,304 to Parker, et al.

The Office Action also objected to claims 15, 24, 38, 60, and 82 under 35 U.S.C. §112, second paragraph, as being indefinite. Claims 15, 24, 38, 60, and 82 are now cancelled. The Office Action also provisionally rejects pending claims under obviousness-type double patenting over copending applications 10/767,212; 10/767,465; and 10/767,404.

III. Discussion of Claims 1-14, 16-23, 25-37, 39-45, 47-50

Independent claims 1 and 26 each recite an article of footwear having an upper and a sole structure secured to the upper. The sole structure includes a bladder and a reinforcing structure. With reference to independent claim 1, each of the bladder and reinforcing structure form a portion of an exterior surface of the footwear, and the bladder and the reinforcing structure are substantially co-planar at an interface on the exterior surface between the bladder and the reinforcing structure. Similarly, independent claim 26 recites that each of the sidewall of the bladder and connecting portions of the reinforcing structure form a portion of an exterior surface of the footwear, and the sidewall and the connecting portions are substantially co-planar at an interface between the sidewall and the connecting portions on the exterior surface.

The Office Action rejects independent claims 1 and 26 as being anticipated by Pavone. In contrast with Pavone, independent claim 1 recites that the bladder and the reinforcing structure are substantially co-planar at an interface on the exterior surface, and independent claim 26 recites that the sidewall and the connecting portions are substantially co-planar at an interface between the sidewall and the connecting portions on the exterior surface. Referring to Figures 3 and 4 of Pavone, the exposed surfaces of the core are spaced inward from the exposed surfaces of the molding, and these surfaces are not co-planar. Accordingly, Pavone does not teach or suggest the recitations of independent claims 1 and 26.

Based upon the above discussion, the Applicants respectfully submit that independent claims 1 and 26 are allowable over Pavone. In addition, claims 2-14, 16-23, 25-37, 39-45, 47-50 should be allowable for at least the same reasons. With regard to claims 10, 16-17, 21-23, 32-33, 43-45, which are withdrawn from consideration, the Applicants respectfully request that these claims be considered if independent claims 1 and 26 are held to be allowable.

IV. Discussion of Claims 51-59 and 61-64

Independent claim 51 recites an article of footwear having an upper and a sole structure secured to the upper. The sole structure includes a bladder and a reinforcing structure. The bladder defines a first surface, an opposite second surface, and a sidewall. In addition, the bladder encloses a fluid that exerts an outward force upon the first surface, the second surface, and the sidewall. The reinforcing structure extends around at least a portion of the bladder, and the reinforcing structure has a first portion that is at least partially recessed into the sidewall and

bonded to the sidewall. In addition, the first portion is at least partially recessed into the first surface and bonded to the first surface. The first surface and the first portion of the reinforcing structure define a lasting surface for securing the sole structure to the upper.

Independent claim 51 is rejected as being anticipated by Pavone. With reference to Figures 3 and 5 of Pavone, the bladder (element 50) fits within the reinforcing structure (element 53) such that the reinforcing structure extends along the sidewall and lower portions of the bladder. No portion of the reinforcing structure, however, extends over or contacts the surface of the bladder that is adjacent the upper. In contrast with independent claim 51, therefore, Pavone does not disclose a configuration wherein the reinforcing structure is recessed into the first surface and bonded to the first surface.

Based upon the above discussion, the Applicants respectfully submit that independent claim 51 is allowable over Pavone. In addition, claims 52-59 and 61-64 should be allowable for at least the same reasons.

V. Discussion of Claims 80-81, 83-95, and 117

Independent claims 80 and 117 recite an article of footwear having an upper and a sole structure secured to the upper. The sole structure includes a bladder and a reinforcing structure, with the bladder being formed of a barrier material. In addition, the reinforcing structure is formed of a material with a greater modulus of elasticity than the barrier material.

The Office Action rejects claim 80 as being obvious over Pavone. Prior to discussing this rejection in detail, the Applicants wish to point out that the bladder is formed of two distinct elements: the barrier material and a fluid. According to the language of the claims, the modulus of elasticity of the reinforcing structure is not being compared to the modulus of elasticity of the bladder. Rather, the modulus of elasticity of the reinforcing structure is being compared to the modulus of elasticity of the barrier material (i.e., one distinct element of the bladder).

According to the rejection, it is conventional for a bladder to have a lower modulus of elasticity than the structure enclosing the bladder. The rejection also states that it would be obvious, therefore, to provide the reinforcing structure of Pavone with greater modulus of elasticity than the barrier material. The Applicants respectfully disagree with these statements, as discussed below.

Most fluid-filled bladders are incorporated into a foam material. As examples, both the foam and the barrier material of the bladder may be formed from or include polyurethane. Given that the foam has a plurality of gas pockets, whereas the barrier material is an unfoamed material, the barrier material will generally have a greater modulus of elasticity than the foam. That is, the unfoamed material (i.e., the barrier material) will have a greater modulus of elasticity than the foamed material (i.e., the foam into which the bladder is incorporated). Conventionally, therefore, the barrier material of the bladder has a greater modulus of elasticity than the material surrounding the bladder. Independent claims 80 and 117 recite an opposite situation, however, wherein the barrier material has a lesser modulus of elasticity than the reinforcing structure.

Furthermore, Pavone is silent as to the relative moduli of elasticity of the element 53 and the material forming element 50. Pavone does indicate, however, that the molding of the sole (element 53) is made in a mold of rubber foam (Pavone, column 2, lines 45-47 and column 3, lines 1-11). As noted above, an unfoamed material will have a greater modulus of elasticity than the foamed material. This suggests, therefore, that the barrier material of the helium core (element 50) in Pavone may have a greater modulus of elasticity than the neoprene foam (element 53). Independent claims 80 and 117 recite an opposite situation, however, wherein the barrier material has a lesser modulus of elasticity than the reinforcing structure.

Based upon the above discussion, the Applicants respectfully submit that independent claims 80 and 117 are allowable over Pavone. In addition, claims 81 and 83-95 should be allowable for at least the same reasons. With regard to claims 89-90, which are withdrawn from consideration, the Applicants respectfully request that these claims be considered if independent claim 80 is held to be allowable.

VI. Discussion of Claims 96-102

Independent claim 96 recites an article of footwear having a sole structure and an upper. The sole structure incorporates a fluid-filled bladder and a non-foam element secured to the bladder. The sole structure has an upper surface and an opposite lower surface. The upper surface forms a ridge that defines at least a portion of a lasting surface, and at least a portion of the ridge is an inclined surface formed by the non-foam element and located over the bladder. In addition, the upper is secured directly to the inclined surface.

The Office Action rejects claim 96 as being anticipated by Pavone. As a first matter, Pavone states that the molding of the sole (element 53) is made in a mold of rubber foam (Pavone, column 2, lines 45-47 and column 3, lines 1-11). Element 53 is not, therefore, a non-foam element, as recited by independent claim 96. Secondly, and with reference to Figure 3 of Pavone, portions of element 53 that contact the upper are not depicted as being over the bladder, as recited by independent claim 96.

Based upon the above discussion, the Applicants respectfully submit that independent claim 96 is allowable over Pavone. In addition, claims 97-102 should be allowable for at least the same reasons.

VII. Discussion of Claims 103-109 and 118

Independent claims 103 and 118 recite an article of footwear having an upper and a sole structure secured to the upper. The sole structure includes a bladder and a reinforcing structure, with the bladder being formed of a barrier material. In addition, the reinforcing structure is formed of a material with greater stiffness than the barrier material.

The Office Action rejects independent claim 103 as being anticipated by Pavone. As discussed above with respect to independent claims 80 and 117, the Applicants submit that Pavone does not teach a reinforcing structure with a greater modulus of elasticity than the barrier material. Similar arguments apply to the concept of stiffness. Accordingly, the Applicants also submit that Pavone does not teach that the reinforcing structure is formed of a material with greater stiffness than the barrier material for at least the same reasons.

Based upon the above discussion, the Applicants respectfully submit that independent claims 103 and 118 are allowable over Pavone. In addition, claims 104-109 should be allowable for at least the same reasons.

VIII. Discussion of Claims 110-116

Independent claims 110 and 116 recite an article of footwear having an upper and a sole structure secured to the upper. The sole structure includes a bladder formed of a barrier material, and the sole structure includes a reinforcing structure. According to independent claim 116, for example, the reinforcing structure is at least partially recessed into the barrier material and bonded to the barrier material. A portion of the reinforcing structure extends adjacent to at least

a sidewall of the bladder, and the portion of the reinforcing structure is in tension when the sole structure is in an uncompressed state due to an outward force upon the barrier material induced by the pressurized fluid. In addition, independent claim 110 recites that the reinforcing structure is formed of a material with a greater modulus of elasticity than the barrier material.

Although no formal rejection has been issued on these claims, the following discussion will focus on distinguishing these claims from Pavone. The general procedure for forming the helium modules core (element 50) in Pavone is disclosed in Figures 6 and 7A-7E, wherein a mold is used to impart shape to the core and the core is filled with helium. The general process for forming the molding (element 53) is disclosed in Figure 8, wherein the inflated core is placed within a mold and a foam is injected into the mold and around the core to shape the molding.

In contrast with Pavone, independent claims 110 and 116 recites that a portion of the reinforcing structure is in tension when the sole structure is in an uncompressed state. For purposes of understanding, the Applicants would like to present an analogy: If a piece of adhesive tape is bonded to a balloon prior to inflation, then the tape will be placed in tension as the balloon is inflated and the material of the balloon expands. If, however, the piece of tape is bonded to the balloon following inflation, then the tape will generally be in a non-tensioned state. With reference to the above discussion of Pavone, it is apparent that the inflated core is placed within a mold and a foam is injected into the mold and around the core to shape the molding. The core is, therefore, inflated prior to bonding between the core and the molding. As with the tape analogy, this manufacturing method likely results in a configuration wherein the molding is in a non-tensioned state when the sole is uncompressed.

Furthermore, manufacturing steps that would be required to modify Pavone to place the molding in tension are not taught or suggested by Pavone. If, for example, the core is inflated after placing the core into the molding, then the core would have to be secured to the molding prior to inflation. As with the tape analogy, no tension results unless the two elements are secured together prior to inflation. If, for example, the core is inflated prior to joining of the core and the molding, then the core would have to be compressed such that uncompression of the core results in tension in the molding. Neither of these steps are taught or suggested by Pavone.

As a further matter, Pavone does not teach or suggest a need for placing the molding in tension. In the present application, the reinforcing structure restrains distension of the sidewall of the bladder. In Figures 5 and 7E of Pavone, however, the core is depicted as having the shape

that it has within the molding. That is, the molding is not necessary to impart a shape to the core. Accordingly, Pavone does not provide any indication that placing the molding in tension would be beneficial.

Based upon the above discussion, the Applicants respectfully submit that independent claims 110 and 116 are allowable over Pavone. In addition, claims 111-115 should be allowable for at least the same reasons.

IX. Conclusion

In view of the foregoing, the Applicants respectfully submit that all claims are in a condition for allowance. The Applicants respectfully request, therefore, that the rejections be withdrawn and that this application now be allowed.

This Amendment is being filed by facsimile transmission on March 8, 2006 with a three-month Petition for Extension of Time. Should additional fees be deemed necessary for consideration of this Amendment, such fees are hereby requested and the Commissioner is authorized to charge deposit account number 19-0733 for payment. If anything further is desirable to place the application in even better form for allowance, the Examiner is respectfully requested to telephone the undersigned representative at (503) 425-6800.

Respectfully submitted,

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